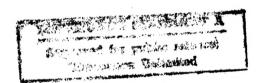
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27 May 1982

## China Report

AGRICULTURE No. 207 19980918 129





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## China Report

AGRICULTURE No. 207

# CHINA REPORT AGRICULTURE

No. 207

### CONTENTS

#### PEOPLES' REPUBLIC OF CHINA

I.	GENERAL I	NFORMATION				
	National					
	Nation	wide Bird Protection Program Urged (GUANGMING RIBAO, 6, 5 Feb 82, HEILONGJIANG RIBAO, 13 Feb 82)	1			
		'Bird Appreciation Week' Commentator on Bird Protectión Eight Protection Zones				
	Increas	se in Rural, Urban Purchases of Consumer Goods Noted (SICHUAN RIBAO, 30 Jan 82)	5			
	Gansu					
Attention to Lamb, Kid Meat Production Urged (Wei Huaifang, Ge Wenhua; GANSU RIBAO, 21 Feb 82)						
	Guangdong					
	Proper	Management To Increase Winter Crop Production (NANFANG RIBAO, 14 Feb 82)	9			
	Bamboo	Cage Fishing in Reservoirs Developed (NANFANG RIBAO, 9 Feb 82)	11			
	Making	Needed Materials Available to Peasants Noted (NANFANG RIBAO, 2 Feb 82)	12			

New Impetus to Sugarcane Production in Panyu County Reported (NANFANG RIBAO, 30 Jan 82)	
Priofo	16
Bileis	
Rubber Output Up	17
New Hybrid Rice	17
Hebei	
Systems of Responsibility Said To Need Correction (HEBEI RIBAO, 1 Feb 82)	18
Measures To Increase Hog Raising Outlined	
(Li Lianyin; HEBEI RIBAO, 1 Feb 82)	20
Scientific Farming Methods Produce Bumper Yields in Test	
Fields	
(Lin Yutang, Lu Shiqi; GUANGMING RIBAO, 14 Feb 82)	22
Heilongjiang	
Nunjiang Adheres to State Plan in Crop Production (HEILONGJIANG RIBAO, 22 Feb 82)	24
Liaoning	
Preparations for a New Year of Farming Urged (LIAONING RIBAO, 19 Feb 82)	26
Shaanxi	
Forestry Specialists Issue Call To Save Forests	
(SHAANXI RIBAO, 22 Feb 82)	29
Development of Favorable Conditions for Pig Raising (SHAANXI RIBAO, 21 Jan 82)	34
Shanxi	
Briefs	
Government Support	36
Sichuan	
Illegal Sugar Profiteering Punished	
	37

(SICHUAN RIBAO, 28 Jan 82)	38			
Readjustment of Crop Patterns, Diversificiation Credited for Greater Output  (Ceng Xudong; SICHUAN RIBAO, 29 Jan 82)	40			
Increased Diversificiation in Agriculture Reported (SICHUAN RIBAO, 29 Jan 82)				
ABSTRACTS				
ME TEOROLOGY				
QIXIANG [METEOROLOGICAL MONTHLY], No 2, 10 Feb 82	43			

NATTONAL.

#### I. GENERAL INFORMATION

NATIONWIDE BIRD PROTECTION PROGRAM URGED

'Bird Appreciation Week'

Beijing GUANGMING RIBAO in Chinese 6 Feb 82 p 1

[Article: "National Bird Appreciation Week Activities Will Begin This Spring, State Council Approves Report by the Ministry of Forestry and Departments Asking To Strengthen Protection of Birds"]

[Text] The nationwide bird appreciation week activities will begin in the spring of this year. This is one of the important measures to protect birds included in the report by eight departments including the Forestry Ministry and approved by the State Council for nationwide implementation.

The Ministry of Forestry, the Foreign Ministry, the Ministry of Foreign Trade, the Ministry of Finance, the Leading Group for Environmental Protection of the State Council, the State Urban Construction Bureau, the Chinese Academy of Sciences, and the Central Committee of the Chinese Communist Youth League have proposed in their joint report submitted to the State Council and entitled "Enquiry Concerning the Implementation of the Mutual Agreement on the Protection of Chinese and Japanese Migratory Birds in Strengthening the Protection of Birds," that the following work conscientiously be carried out:

- 1. Propaganda and education should be launched in a big way. The week from the end of April to the beginning of May should be designated as "Bird Appreciation Week" (actual time to be set by the provinces, cities, autonomous regions). During Bird Appreciation Week, reporting conferences or discussion meetings can be organized. Experts can be invited to lecture. Youths can be organized to go to the fields, nature preserves, regions where hunting is prohibited, and parks to observe birds, and they can be encouraged to hang up man-made bird cages to protect and lure beneficial birds and to conduct such activities to establish the concept that "everyone has the responsibility of protecting birds" and to gradually develop a habit of appreciating and protecting birds.
- 2. Protection and management should be strengthened and uncontrolled trapping and hunting of birds must be prohibited. Rare birds to be protected under state laws must be strictly protected. No unit or individual

can trap or hunt, sell or buy and transport protected birds without approval by the administrative forestry departments. Hunting should be prohibited in cities and towns, industrial and mining areas, nature preserves, nonhunting zones, tourist regions, scenic areas and parks. Such hunting devices and methods as the gathering of eggs, destruction of nests and the use of poisons, blasting shells (firecrackers), and air rifles that destroy the resources of birds should be prohibited.

- 3. More areas should be zoned as nature preserves for migratory birds. It is suggested that the main propagation grounds, the wintering grounds, the main resting grounds along routes of migratory birds, especially islands, lakes, swamps, beaches that have important value in protecting migratory birds within the nature preserves of the nation and the provinces, cities and autonomous regions should be zoned as natural sanctuaries. Those regions that should be protected but for some reason cannot be zoned as a nature preserver can be zoned as nonhunting regions.
- 4. Tagging work should be launched. Tagging has important meaning in the protection and the rational utilization of migratory bird resources, in scientific research, national defense, plant protection and prevention and control of diseases. Since 1899, the world has tagged over 30 million birds. Nations in east Asia tagged over 1,200 species of migratory birds from 1963 to 1970. Tagging is an indispensable part of implementing the Sino-Japanese bird protection agreement. It will be studied and handled by the Ministry of Forestry together with the Chinese Academy of Sciences.
- 5. Procurement and export control of bird products should be strengthened. Economic birds and their products are important export materials. Production, procurement and exporting should be organized according to plan and under the prerequisite of not destroying resources. All birds to be protected under state regulation and not approved for trapping by the forestry departments cannot be procured by the departments of supply and marketing, foreign trade, urban construction and flower and bird shops (companies), specimen companies (factories) and zoos; and foreign trade departments must not export them.

Commentator on Bird Protection

Beijing GUANGMING RIBAO in Chinese 5 Feb 82 p 1

[Article by commentator: "Protection of Birds Must Not Be Delayed"]

[Text] Birds are a part of nature and they are a precious resource. Protecting birds has an important significance in maintaining the natural ecological balance. Therefore, protecting and rationally utilizing the resources of birds have become international symbols used to measure the natural environment, the scientific culture and civilization of society, a nation and a region.

In today's efforts to advocate the building of spiritual civilization of socialism in a big way, the approval by the State Council of the enquiry

concerning strengthening the protection of birds submitted by the eight departments including the Ministry of Forestry has great significance.

Our nation has 1,175 species of birds, a nation with the most number of species of birds. Our nation can be considered to be "especially endowed." Our nation has 56 species of wild chickens, constituting 1/5 the total number of wild chickens in the world. The whole world has 15 species of cranes. Our nation has nine of them, and among these, the Danding crane and the black neck crane are mainly found in our nation. Yet, our work in the protection and the utilization of the resources of birds falls far behind many nations. The result of a long period of uncontrolled trapping and hunting has forced some rare birds and hawks and vultures to become nearly extinct. This situation should be changed within a short period with an all-out effort.

To protect birds, we must first appreciate birds. Every person in the whole of China should appreciate birds and should cultivate the virtue of appreciating birds. The State Council has decided to launch "Bird Appreciation Week" activities throughout the nation. This is a very important measure. Each department must carry this out. Scientific workers have the unshirkable duty to propagate knowledge about birds. Middle and elementary schools, Chinese Communist Youth League and young vanguard teams must shoulder the heavy responsibility in this regard. They should teach knowledge about birds to the younger generation, and organize and lead them in launching activities to protect beneficial birds. The activity of "Bird Appreciation Week" should be carried out year after year so that a new virtue of appreciating birds and protecting birds will surely be established among the people of the whole nation.

There should be an appropriate increase in the number of nature sanctuaries for birds. Japan has 1,000 bird sanctuaries. Up to the present, our nation has only zoned 10 such regions. It goes without saying that such a number is far too small for such a nation like ours which is so large.

Artificial cultivation of economic birds needs to be strengthened. Foreign nations have created pheasant farms and have raised pheasants on farmland to eliminate the seeds of weeds and harmful insects. All of these things are worth learning. The great lag in the work of artificially raising pheasants in our nation must be urgently changed. Luring beneficial birds also must be highly emphasized and this work should catch up quickly. According to information on Shandong Province, luring grey magpies to the forests can effectively prevent the occurrence of insect pests. Uncontrolled trapping and hunting must be quickly stopped. According to complaints, some factories in at least two industrial sectors are producing air rifles and the number of such guns produced within a year is in the millions. This situation has worried some zoological workers. With such continuous production of hunting weapons, how can uncontrolled trapping and hunting be stopped? The supply and marketing units, foreign trade, flower and bird companies, and specimen factories should all abide by state regulations and conduct business, procure and export birds within the allowable limits. Units and individuals who violate such state regulations and destroy the bird resources must be investigated regarding their responsibility. Units and

individuals who have realized outstanding achievements in the protection of birds must be praised and rewarded.

#### Eight Protection Zones

Harbin HEILONGJIANG RIBAO in Chinese 13 Feb 82 p 4

[Article: "Our Nation Has Zoned Eight Nature Preserves for Birds, They Include the Zalong Nature Preserves in Heilongjiang"]

[Text] According to the latest information provided by the Ministry of Forestry, our nation has zoned eight nature preserves mainly for the protection of birds.

These eight preserves are: Niaodao Nature Preserve in Qinghaihu in Qinghai, Tianehu Nature Preserve in Bayanbulak in Xinjiang; Luyashan Preserve in Shanxi; Pangguangou Nature Preserve in Shanxi; Laotieshan Shedao Nature Preserve in Liaoning; Zalong Nature Preserve in Heilongjiang; Tongyu Nature Preserve in Jilin; Zhenlai Nature Preserve in Jilin. The total area of the 8 preserves cover over 360,000 hectares.

Besides the nature preserves mainly to protect birds, many regions have also zoned areas where hunting is prohibited also to protect birds. Throughout the nation, there are 85 other general nature preserves, most of which also serve to protect birds.

9296

INCREASE IN RURAL, URBAN PURCHASES OF CONSUMER GOODS NOTED

Chengdu SICHUAN RIBAO in Chinese 30 Jan 82 p 1

[Article: "All-Around Increase in Amounts of Food, Clothing, and Goods For Daily Use in City and Country Markets Throughout the Country During 1981"]

[Text] State Statistical Bureau recently provided data shows that in 1981 goods sold in city and country retail markets in China-food, clothing, and items for daily use alike-continued increases in quantities sold.

According to the statistics, in 1981 total retail sales of social commodities was 235 billion yuan, a 21 billion yuan increase over 1980 for a 9.8 percent growth (a growth of 7.7 percent following deduction of retail commodity price rises). Comparison of total retail sales of social commodities last year with 1978 shows a 79.14 billion yuan for 50.8 percent increase. This resulted from increased earnings by urban and country people following implementation of various programs and policies in the wake of the 3rd Plenary Session of the 11th Party Central Committee.

Analysis shows emergence of several new changes in city and country markets during 1981. The extent of rural commodity retail sales increase was larger than for cities. In 1981 city and town commodity retail sales amounted to 102.6 billion yuan, an eight percent increase over 1980; rural commodity retail sales amounted to 132.4 yuan, an 11.3 percent increase over 1981.

Sales of commodities for daily use were greater than sales of food or clothing. In 1981, market sales of 15 major items for daily use including matches, soap, sewing machines, wristwatches, bicycles, and pencils increased 10.5 percent over 1981, sewing machine sales increasing 28 percent, bicycle sales increasing 17.9 percent, and television set sales increasing 44.4 percent. Sales of 10 major food items including grain, edible oil, meat, eggs, and sugar showed increases of only 4.5 percent, while sales of 10 major clothing items including cotton cloth, chemical fiber cloth, and woolens increased by only six percent. This situation shows that the purchasing power of the people has already begun to shift toward high quality, durable consumer goods.

The amount of commodity sales through all circulation channels showed all-around increase, and quantities of goods retailed through supplementary channels showed greatest extent of increase. In 1981, businesses owned by all the people (including the beverage industry) had retail sales 3.5 percent greater than in 1980. Retail sales by collectively owned businesses increased 34.2 percent. Retail sales by the 1.83 million individual households authorized by industrial and commercial administrative departments increased 2.2 fold. Commodity sales by industrial units themselves also increased by 31.5 percent over 1980. Volume of business transacted in urban and rural country fair trade for the year amounted to 29 billion yuan, a 23.2 percent increase over 1980.

The State Statistical Bureau acknowledged the existence of problems in markets at the present time, one of which was that increased sources of supply of retail goods has still been unable to catch up with increased purchasing power demand for social commodities. Vigorous development of consumer goods production must continue, with prompt organization of procurement and expansion of sources of supply. Secondly there has been a tendency toward increase in unmarketable goods in commercial storage in the country. Forces must be organized for conscientious inventorying of overstocked goods, and their sale urgently promoted. Third is the fairly serious incidence of illegal conduct in speculation and profiteering in markets. Effective measures must be taken to put a stop to it.

GANSU

ATTENTION TO LAMB, KID MEAT PRODUCTION URGED

Lanzhou GANSU RIBAO in Chinese 21 Feb 82 p 1

[Article by Wei Huaifang [7614 2037 2455] and Ge Wenhua [5514 2429 0553]: "A New Way To Develop Lamb and Kid Meat Production"]

[Text] In livestock production and in business and foreign trade, the meat from lambs or goats slaughtered before they are 1-year old in the year of their birth is termed lamb or kid meat. Lamb and kid contain much lean meat, little fat, little of the strong smell of mutton or goat, have abundant nutrients, are delicious and juicy, and are readily digested and absorbed. Formerly in the raising of lambs and kids, emphasis has been concentrated on production of mutton from sheep, and the kid meat production potential provided by goats which make up 38 percent of the combined sheep and goat population, particularly from the fine hybrid variety milk goats, remained to be tapped.

Experiments carried out by the animal husbandry department of Gansu Agricultural University at the Yangxiaba Multiple Test Site in Wuwei Prefecture on "Results in Shaneng Milk Goat Hybrids in Improving Local Goats" showed that not only was the quantity of milk from hybrid goats greatly increased, but also that, happily, hybrid goat meat production also remarkable increased. At age 1-month, first generation Shashi hybrid bucks were castrated. At age 7 or 8 months, their live weight averaged 33.8 kilograms, and their dressed weight averaged 16.8 kilograms. Fats and oils weighed 2.7 kilograms, for a dressing percentage of 49.8 percent. Native varieties castrated at the same age and under the same conditions averaged live weights of only 22. 4 kilograms, dressed weights of 10.5 kilograms, and fat and oil weights of 1.4 kilograms, for a dressing percentage of 46.9 percent. The former had a live weight averaging 50.9 percent more than the latter, a dressed weight averaging 60 percent higher, an oil and fat weight 92.86 percent higher, and a dressing percentage 3 percent higher.

Nowadays the people of many country's in the world want and favor the meat of young animals rather than that of adult animals, and the demand for lamb and kid is particularly noticeable. As a result the price of lamb and kid on the international market is double that for goat and mutton. In addition to the aforementioned meat characteristics, because of the rapid growth of

lambs and kids in the first several months following birth, their efficiency in using vegetable protein feeds is from half to double that of adult sheep and goats. Raising of lambs and kids requires only their mother's milk and pasturing on grassland, with no feeding or little feeding of concentrated feeds. Animals slaughtered before the onset of winter means a saving both in fodder, feed and work, and also prevention of deterioration by the following spring; it lowers costs, increases the return from feed, and has many economic benefits. In addition, the valuable pelts in the sheep raising industry generally come from the young of between 6 and 9 months old. It is precisely for this reason that some countries advanced in the raising of sheep have entered into specialized production of fatted lambs (6 to 9-month old lambs that have been fattened are called fatted lambs). In New Zealand, for example, 73.7 percent of all the sheep slaughtered in 1975 were fatted lambs, and exports of lamb were 3 times that of mutton. Australia's 1974 output of fatted lamb amounted to 61.6 percent of total output of lamb and mutton. In the American market, lamb and fatted lamb account for 94 percent of total sales of lamb and mutton.

Mutton and goat are important meats eaten by China's people, and they are the principal meat eaten by many national minority peoples in particular. Gansu Province's average consumption of mutton and goat is not great, and one might say that mutton and goat are truly rarities. If a portion or most of the province's almost 4 million head of goats were to be improved through hybridization, the hybrid ewe's used to supply milk, and the bucks castrated and slaughtered for their meat in the same year, not only would this help raise the people's nutritional levels, but it would also increase the earnings of the broad masses of herdsmen. This is a new way to produce lamb and kid meat, which should arouse the serious attention of units and leaders concerned.

9432

#### PROPER MANAGEMENT TO INCREASE WINTER CROP PRODUCTION

Guangzhou NANFANG RIBAO in Chinese 14 Feb 82 p 1

[Text] Zhanjiang Prefecture Strives To Reap Bumper Harvest in Winter Yams

The majority of the communes and brigades in Zhanjiang Prefecture suffered considerable losses in grain production during the latter part of last year as a result of floods. In order to make up for the loss caused by the disaster and to tide over the lean months in spring, the various counties mobilized the masses to engage in the production of winter crops. Throughout the prefecture, 2.761 million mu of land was planted to winter sown crops, or 308,000 mu more than the previous year. Of this acreage, 1.92 million mu was planted to such grain crops as winter yam, or 157,000 mu more than the previous year. In Yangchun County, which had suffered heavy damage, 120,000 mu was planted to winter grain crops, or twice the acreage for the previous year. Up to the present, fertilizers have been applied once or twice to winter yams throughout the prefecture and the soil has been reconditioned. The yams are thriving and a bumper harvest may be expected.

Winter Sown Wheat Thrives Well in Chao'an County

In Chao'an County this year, 97,500 mu of winter sown wheat has been planted, an increase of 46 percent over the figure for last year. The wheat is thriving well because it was planted early and was well managed.

In the planting of winter wheat in Chao'an County this year, a superior variety of seeds was used, base fertilizers were applied before planting and the soil was tended with care. Furthermore, the seeds were sown from 7 to 10 days earlier than in previous years. In view of the short span which characterizes the fertilization and the growth period of wheat in the various areas, tillering fertilizers [0433 5649 5142] were applied and reapplied during the early stage to promote its early growth. Fertilizers to strengthen roots and stalks were skillfully applied in the intermediate and late stages. At the same time, water was applied scientifically, a forecast was made of insect pests, chemical weed killers were used extensively, and insects and rats were exterminated to ensure the normal growth of wheat.

Wuhua County Does Well in Tobacco Production

Wuhua County, taking advantage of the winter 1ull and making use of arid areas, planted 31.100 mu of tobacco last winter.

In order to do a good job in tabacco production, the concerned departments in the county paid attention to the implementation of the tobacco purchasing policy and signed a number of contracts for the sale and marketing of tobacco. The supply and marketing cooperatives of the county also organized 200 workers in tobacco production to go to the various farm families to instruct them on the planting of tobacco and the management of the operation. Benefiting from the lessons they had learned in the past of the extensive damage done to the tobacco seedlings due to frosts and the failure to take proper preventive measures, the various communes and brigades planted tobacco ahead of time last winter. When the tobacco was solidly rooted, fast-acting fertilizers were slowly applied. When winter frost came, antifrost covers were used, enabling the tobacco plants to survive and to flourish.

Shaoguan Prefecture Strengthens Rape Cultivation Management

Last winter, Shaoguan Prefecture, taking advantage of the winter 1ull, planted 393,000 mu of rape, or 10,000 mu more than the previous year. Yingde County, which has the largest acreage, planted 183,000 mu of rape, exceeding the quota set by the prefecture by 147 percent. Because various locations in the prefecture have implemented widely the production responsibility system of either assigning production to each household in return for fixed levies or fixing output quotas to individual able-bodied laborers, the enthusiasm on the part of the cadres and the masses for planting and managing the rape have been considerably heightened. The three brigades of Banpu, Boxia and Sanjiaokeng of the Qiaotou Commune in Yingde County, taking advantage of the winter 1ull, planted rape with planted areas reaching 7,000 mu. Since the enforcement of the production responsibility system, commune members attended to their duties assiduously, applied adequate amounts of fertilizers before planting and erected bamboo fences along the roadsides to prevent the animlas from trampling on the vegetables. At the present time, winter sown crops in the farmland of many areas in Northern Guangdong are doing extremely well.

9621

BAMBOO CAGE FISHING IN RESERVOIRS DEVELOPED

Guangzhou NANFANG RIBAO in Chinese 9 Feb 82 p 2

[Article: "Thirty-five Counties in Guangdong Develop Fishing in Reservoirs"]

[Text] Since 1977, 35 counties in our province have launched a drive to use bamboo cages for fishing in 79 reservoirs with promising results. The cages are hoisted every day or every few days. The catch usually ranges from several hundred to 10,000 jin. The cost is 50 to 80 percent lower than that of using other fishing gear.

Previously, fishing in reservoirs was done mostly by using gill nets, trawl nets, electricity and by draining the reservoirs. High in cost and low in productivity, these methods do great damage to resources. Furthermore, because too large a quantity of fish is caught within too short a period of time, the rate of spoilage is high. In 1973, the Zhujiang Marine Products Research Institute, working on the principle of using nets made of bamboo slats for fishing, devised a trap in the shape of a cage measuring 40 meters in length and from 5 to 10 meters in height and width. The point of entry is shaped like a trumpet while a funnel-shaped net is fixed to the throat. making it easy for the fish to get in and difficult to get out. When this device had its test run at the Shahe Reservoir in Kaiping County, the comrades at the reservoir discovered that after a school of fish had entered the funnel-shaped net, it became so congested that a number of fish turned tail and escaped. Thereupon, the comrades at the reservoir affixed a tapered net at the point of entry so that once they had entered the net, the fish were ready to be taken.

The best time for using this type of net for fishing is from April to October when it is warm and rainy and when the fish customarily go upstream in search of food or to look for spawning grounds before going back downstream to rest. By placing this type of net where the fish make their return run or where they go in search of food, it would not be necessary to drive them into the net or to assign somebody to watch them, since the fish would enter the net of their own accord. The net is raised every day or every few days. This operation requires two boats and from two to four workers to haul in the nets. If necessary, the cage-shaped nets may also be used as casting nets.

9621

#### MAKING NEEDED MATERIALS AVAILABLE TO PEASANTS NOTED

Guangzhou NANFANG RIBAO in Chinese 2 Feb 82 p 2

[Article: "How the Industrial and Commercial Departments Can Meet the Peasants' Demand for Production Materials"]

[Text] At a recent meeting of the province on the supply of agricultural production materials, the managers of production companies from the various areas expressed the unanimous view that agricultural production had reached new heights in the rural areas, that the peasants had the money to buy urgently needed production materials, that the industrial and commercial departments must pay serious attention to this new situation and that they must make available to the peasants production materials as well as consumer goods.

According to the findings of the concerned departments, the peasants are eager to spend the money they have to buy the production materials they need, especially those from areas where the agricultural production responsibility system was implemented at an early date and which have had bumper harvests. There is not only a sharp demand for production materials, but the size of the demand has also assumed increasing proportions. For example, the sale of agricultural production materials by the Lantang Commune in Zijin County totalled only some 390,000 yuan in 1979, whereas from January to September, 1981 alone, the sale of such goods exceeded 760,000 yuan. Among the production materials sold, the amount of chemical fertilizers doubled over that before the enforcement of the production responsibility system. Following the implementation of the system, the Chang [0960 1122] Commune in Lechang County bought some 9,600 pieces of medium and small-sized farm implements during the first eight months of last year whereas only 6,400 pieces were bought during the same period the previous year, showing an increase of 48 percent.

Another new development in the market for agricultural production materials is that the peasants are more concerned over the economic benefits of investing in production and in purchasing production materials, commonly demand that these materials be economicall and suitable and that they be of a high quality. There is, for instance, a sharp increase in the demand for chemical fertilizers. According to statistics, the use of chemical fertilizers on each mou of paddy field in areas where the application of fertilizers was already of a high level came to over 200 jin. Even in areas originally low in the usage of chemical fertilizers, the rate of usage has reached 80 or 90 jin, in general,

an increase of 20 to 30 jin. There have also been new changes in the kind of fertilizers in demand, such as the demand for a larger supply of urea and potassium. In 1978, less than 20,000 tons of potassium were used in the province whereas in 1981, the amount had increased to 130,000 tons. In 1978, only 800,000 tons of phosphate were used whereas in 1981, the tonnage had reached 920,000. There has also been a greater demand for a wider variety of medium and small-sized farm implements, such as dragon-bone water lifts, old-style threshing machines, one-man threshing machines and funnels, which had long fallen into disuse and have now become hot-selling items. Other new products such as plastic urinals and pots for seedlings are also in great demand by the peasants. As for oxen used for farming, the demand in some areas is for small oxen and buffaloes which sell for between 300 to 500 yuan and which are most suitable for exclusive use by single families because they can be used to till the land during the planting season and to carry burdens during the off season. In 1980, the Jiujiang Production Brigade of the Shihgu Commune in Gaozhou County had only 139 oxen for farming, but the number had increased to 350 in 1981. Over 80 percent of the farm families in the brigade have their own oxen for farming. Since the implementation of the production responsibility system, the work of making available agricultural production materials to the peasants has also undergone vast changes. Formerly, the major clients for agricultural production materials were the production brigades which were more centralized and whose distribution capacity is greater making the work of distribution much simpler. Now that thousands of families have to be served, more frequently, with a lesser volume of supplies, and in a shorter purchase time, the volume of work has greatly increased. For example, Shantou Prefecture originally had 2,008 fertilizer and farm chemical supply stations employing 3,800 salesmen. By 1981, the number of stations had increased to 3,000 and the number of salesmen to 4,500. And yet, during the busy farming season long lines were formed by the masses waiting to buy farm chemicals and fertilizers.

As regards the present situation in the market for agricultural production materials in the province, the supply of fertilizers has shown a considerable increase while the reduction in the supply of film used for farming is likely to create a shortage, especially in medium and small-sized wooden farm implements and boats used for farming. Due to the shortage of raw materials and pricing problems, the production and supply of such products are likely to continue their downward trend. The concerned departments at various levels must alert themselves to the seriousness of the problem and adopt appropriate measures to remedy the situation.

9621

#### **GUANGDONG**

INCREASED EARNINGS FROM AGRICULTURAL, INDUSTRIAL DIVERSIFICATION REPORTED

Guangzhou NANFANG RIBAO in Chinese 20 Jan 82 pp 1, 3

[Article by Liang Fuqing [2733 4395 2348] and Tao Guangyuan [7118 0342 0337]:
"Great Increases in Collective Distributions in Foshan Prefecture in Year of Major Disasters. Sunlight from Third Plenary Session Illuminates Pearl River Delta. Average Annual per Capita Collective Distributions at 39 Yuan for Past 3 Years, While During 11 Years Prior to the Third Plenary Session Annual per Capita Increases in Earnings Only 2 Yuan. Ever Increasing Contributions to Country; More and More Commodities Provided Society"]

[Text] The year 1981 was one of disasters for Foshan Prefecture, yet it was a record year for distributions from collectives. The prefecture's average distributions per capita rose from 199 yuan in 1980 to 231 yuan.

In the 3 years since the Third Plenary Session [of the 11th Party Central Committee], Foshan Prefecture's principal agricultural products—rice, sugarcane, peanuts and pond fish—rose from a pre-Third Plenary Session average annual rate of increase over a 12-year period of 0.8, 3.1, 10.1 and 3.1 percent respectively to 13, 16.8, 31.7 and 6.6 percent respectively. The prefecture made an increasingly great contribution to the country, and provided ever larger amounts of commodities to society. During the last 3 years the prefecture's rural collective distributions have averaged an annual per capita increase of 39 yuan, while in the 12-year period prior to the Third Plenary Session, annual per capita increase averaged only 2 yuan.

Consecutive years of increased output and increased earnings have made the lives of local peasants increasingly rich and varied. In 1981, more than 84,000 commune member households in the prefecture built new houses. The rural population drinking running water rather than water from rivers increased by more than 360,000. Commune member savings deposits (as of the end of 1981) amounted to 760 million yuan. These were all-time records. A substantial number of households had savings of 10,000 yuan. Xiaolan Commune in Zhongshan County had more than 500 such households, and Guzhen Commune had more than 300.

Following the Third Plenary Session and under the guidance of national plans, Foshan Prefecture respected the self-determination of production teams, and adapted general methods to local situations in a production program of gradual all-around development of farming, forestry, animal husbandry, sideline occupations and fisheries, which

changed the substantially singular former economic structure of agriculture and created conditions for consecutive years of increased output and increased earnings. As a result of small area experiments conducted during 1979 and 1980 in growing crops other than paddy rice (sugarcane and peanuts), and inasmuch as a bumper rice crop had been harvested during those 2 years and a substantial amount of grain was in storage, in 1981 the prefecture converted 5 percent of its paddyfield area (slightly more than 240,000 mu) to the growing of sugarcane and peanuts, or dug ponds to raise fish. Most of these paddyfields were low-lying fields, brackish fields, windy coastal fields or rather arid hilly fields whose output of rice was very low and whose economic benefits clearly increased as a result of the conversion. Calculated on the basis of prevailing award sales policies for sugarcane and pond-fish, as a result of the prefecture's 1981 expansion of the growing area and increases in yields per unit of area, increased earnings from sugarcane may amount to 84 million yuan. Output value of pondfish increased by more than 20 million yuan.

Foshan Prefecture's production program for all-around development of agriculture not only did not weaken but rather promoted grain production. The role of rotational cropping of rice and sugarcane and rice and pulses was particularly striking. As compared with the 12 years prior to the Third Plenary Session, 1980's output of more than 5.6 billion jin of rice was 450 million jin more than the 1977 all-time record. Output in 1979 also surpassed that of every year save 1977. The 1981 early and late rice crops were seriously hit by five water or wind disasters, and output fell by more than 1 billion jin from that of the previous year; nevertheless, it was still clearly greater than the era of "take grain as the only link."

One important aspect of Foshan Prefecture's multiple operations and all-around development of agriculture was the full use made of abundant local resources, of its proximity to Guangzhou, Hong Kong and Macao, and its fairly well developed commodity economy for active development of commune and brigade enterprises to increase peasant earnings. With the encouragement of a series of correct policy measures pertaining to production, supply and marketing, during the last 3 years average annual increases in earnings of the prefecture's commune and brigade operated enterprises rose from somewhat more than 26 million yuan and somewhat more than 23 million yuan respectively for the 12 years prior to the Third Plenary Session, to somewhat more than 190 million yuan and 107 million yuan respectively. In 1981, in particular, with implementation of special economic policies, earnings of commune "three intake and one supplement" enterprises in the prefecture increased by 62 percent over 1979. In response to the people's building of large numbers of new houses in cities and the countryside, and to the need for high quality goods for use in their daily lives, commune and brigade enterprises that developed most rapidly in 1981 were those that produced light industrial goods, and beverage processing industries, including those producing building materials, electric fans, embroideries, high quality furniture, small hardware items, and on down. Gross earnings for commune and brigade enterprises during 1981 are estimated at more than 1.7 billion yuan, which is 78 percent of the prefecture's gross output value from agriculture.

9432

#### GUANGDONG

#### NEW IMPETUS TO SUGARCANE PRODUCTION IN PANYU COUNTY REPORTED

Guangzhou NANFANG RIBAO in Chinese 30 Jan 82 p 1

[Article: "Panyu County Province Champion in Sugarcane Output. Despite Grain Output Reduction in 1981, Average per Capita Income Showed Slight Increase"]

[Text] As a result of needed readjustment of the structure of agriculture during the past three years, Panyu County has become one of the province's major cane sugar production bases. The county holds first position in sugarcane growing area, total output and yields per unit of area. It is estimated that in 1981 output of the county's sugarcane industry may reach more than 1.45 million tons, and that yields per unit of area will be 6.3 tons, for increases over 1980 of 30 and 1.6 percent respectively.

Paddy rice and sugarcane have always been Panyu County's two major crops. However, because of past one-sidedness in the guiding mentality, sugarcane production developed rather slowly. During the 1960's and up until the mid-1970's, the sugarcane growing area hovered around 130,000 mu; output totaled no more than about 500,000 tons; and yields per unit of area were somewhat more than 3 tons, lagging far behind the major sugarcane producing areas of Shunde and Zhongshan counties. In 1977, and particularly following the 3rd Plenary Session [of the 11th Party Central Committee], acting on the basis of local suitability for the growing of sugarcane and under guidance of the state plan, the county gradually increased its sugarcane growing area annually while maintaining steady growth in grain output. By 1981 the sugarcane growing area had increased to 230,500 mu, which was 34 percent of the county's cultivated land area.

In 1981 the county sustained natural disasters and, furthermore, because a system of responsibility for production had not been completely implemented at the time of the early rice crop, grain output dropped by 120 million jin from the all-time high year of 1980, yet maintained the bumper harvest level of 1977. Now the county has substantially fulfilled its public grain quotas. Despite the reduction in grain output, because of the bumper harvest in sugarcane, average per capita distributions in the county showed a slight increase over the 276 yuan of 1980.

9432

#### BRIEFS

RUBBER OUTPUT UP--The Tongshi State Farm and Land Reclamation System has sent an encouraging victory report. In 1981 the reclamation area was hit with a 5-force typhoon, but after more than 3 million slashed rubber trees were snapped off, the broad masses of staff and workers in the state farm and land reclamation area roused their revolutionary spirit to triumph over post-disaster hardships and rapidly restore production, winning a bumper rubber output in a disaster year. Last year's output of 31,200 tons of dry rubber overfulfilled by 204 tons the annual state plan. Nantian, Nanmao and Sandao farms, which were hardest hit in 1981, handled the wind damaged trees within a short period of time and cleared away roads in the rubber tree groves, collected broken off rubber tree timber, remedied post-disaster damage, and rapidly restored production. In addition, all farms intensified scientific care of damaged trees, nurtured rubber output potential by applying technical regulations, bringing some wind-damaged rubber trees back into production ahead of schedule to increase dry rubber output and assure fulfillment of state production plans.

[Text] [Guangzhou NANFANG RIBAO in Chinese 2 Feb 82 p 1] 9432

NEW HYBRID RICE--In order to hasten breeding of a successor variety to "Guichao," 22 agricultural science units in Guangdong Province's prefectures and municipalities began cooperation on 2 February on intermediate experiments with large area growing of new fine variety paddy rice, "Shuanggui No 1." Fine variety "Guichao," the renowned high-yield fine variety rice bred in Guangdong Province, has played a very great role in increasing grain yields since its promotion in 1978. However, as a result of having been planted in numerous crops over many consecutive years, this variety's resistance has gradually weakened. In the breeding of "Shuanggui No 1," the Multiple Genetic Techniques Breeding Research Office of the Rice Institute of the Provincial Academy of Agricultural Sciences crossed "Guiyang C 17," the female parent, with "Guichao No 2," the male parent, for the initial breeding in 1979 of a new fine variety, which can be used as either an early or a late crop. many sites has shown it to have short stems, tolerance of fertilizer, high yields, resistance to lodging, and a stronger resistance to bacterial blight and blast of rice than "Guichao No 2." Quality of husked rice is also rather good. This intermediate testing was done provincewide at 22 intermediate test sites of various kinds in mountains, hills and plains. At each site, demonstrations were conducted on 100 mu tracts, and some auxiliary experiments in culturing were also done. Before and after the lunar new year, all locales continued to run technical training courses. [Text] [Guangzhou NANFANG RIBAO in Chinese 6 Feb 82 p 1] 9432

#### SYSTEMS OF RESPONSIBILITY SAID TO NEED CORRECTION

Shijiazhuang HEBEI RIBAO in Chinese 1 Feb 82 p 1

[Article: "Zhangjiakou Prefecture Acts To Perfect Systems of Responsibility. Rapid Implementation, Persistent Consolidation, and Gradual Perfection"]

[Excerpt] Recently the Zhangjiakou Prefecture CCP Committee and provincial administrative offices convened a prefectural conference for exchange of experiences on systems of responsibility for agricultural production. Everyone referred to vivid realities to enthusiastically extol the systems of responsibility for agricultural production. Discussions linked to local realities brought forth ideas for perfecting systems of responsibility for agricultural production in 1982.

Since mid-August 1981, every place in the prefecture has been assigned by the Prefecture CCP Committee to use a guiding mentality of criticism of "leftism" to eradicate pernicious influences and of bringing order out of chaos in renewed study and implementation of the spirit of the 3rd Plenary Session of the 11th Party Central Committee, in running make-up classes for discussion of the issue of standards for truth, in redressing past wrongs on a wide scale, with the Hu Ge solution of problems being representative, and carrying out wide-ranging discussions of systems of responsibility for production. This has been for the purpose of breaking the fetters of erroneous leftist ideology and to clear away all obstacles for carrying out perfection of systems of responsibility for production, implementation work for the prefecture's systems of responsibility for agricultural production thereby developing fairly rapidly. As of now, 20,996 basic accounting units in the prefecture have set up various forms of a system of responsibility for production, of which 93.79 percent either contract production to households or contract work tasks to households under unified management. In the process of implementing systems of responsibility for production, inasmuch as some cadres lacked an accurate perception and had insufficient experience, some problems occurred. For example, in some units such problems occurred as making no distinctions between what belongs to one and what belongs to another, complete dividing up of everything, including cutting down trees, tearing down houses, and disposing of public property at low prices. In some other communes and brigades there existed the problem of one-sidedness in handling the relative interests of the state, the collective, and individuals. In view of these problems, the following four actions were proposed for improvements in systems of responsibility for agricultural production in 1982.

- (1) Correct handling of the relationship among the state, the collective, and individuals. Regardless of the form of a system of responsibility practiced, provisions must first be made for, and fulfillment guaranteed for, state requisition procurement of grain and edible oils, quota purchases of agricultural products, and collection of revenues. As the peasants prosper, support for the party and the country cannot be forgotten, but rather necessary contributions to the country should be actively made. Furthermore, with the growth of production and the year-by-year increase in commune member earnings, public accumulations should gradually increase. Even production teams that practice contracting work tasks to individual households must withhold a certain amount, as resources permit, for public accumulation funds, public welfare funds, for strengthening the collective economy, and for developing collective endeavors.
- (2) Correct implementation of the principle of doing in a unified way whatever should be done in a unified way, and contracting whatever should be contracted to protect and develop productivity. It is recommended that "contracting" be done under "unified" leadership, and that the "contracted for" should also be managed. Whatever should be unified and whatever should be contracted, or how things should be unified and how they should be contracted should have as their point of departure that which is both advantageous in protecting and developing productivity and in making the most of the superiority of the collective economy, and that which is advantageous in arousing the enthusiasm of the broad masses of commune members for labor, the emphasis being on the word "adaptation" in the adaptation of general methods to local situations, to times, and to industries. Persuasion of the masses has to be done on the issue of unifying and contracting, those things that should be unified being definitely unified, as for example, large farm machines and implements, fixed assets, and public accumulations, all of which should be unified. Orchards, large water conduits and such production facilities should be unified. When major natural disasters occur, in order that collective strength be brought to bear in carrying out a struggle against disaster, work forces must be planned and assigned in a unified way. In the case of those things that were divided when they should not have been divided, thereby damaging productivity, leaders at all levels should dare to get to work in restoring them to their original condition. In some places where draft animals, small water conservancy facilities, small farm implements and small production items are suitable for division among households for use and care, action should proceed from realities and dispersed use and care practiced.

9432

HEBEI

#### MEASURES TO INCREASE HOG RAISING OUTLINED

Shijiazhuang HEBEI RIBAO in Chinese 1 Feb 82 p 1

[Article by Correspondent Li Lianyin [2621 6647 0603]: "Need for Speedy Reversal of Live Hog Decline"]

#### [Text] Editorial Department:

Recently I conducted an investigation on the issue of live hog production with concerned units in Langfang Prefecture. Results of the investigation showed that during the past 3 years the overall situation in live hog production in this prefecture has been that of a dramatic decline in collective raising of live hogs and not very fast development of private hog raising. Statistics as of the end of December 1981 show 709,834 live hogs in inventory in the prefecture, a 153,156 reduction from the same period in 1980, which is a 7.7 percent decline or a 52.4 percent decline from the all-time high. Why has hog production declined so drastically? Reasons are many, but it was caused mostly by lack of vigorous leadership, numerous policy changes and "difficulties in selling hogs."

How can decline in hog production be reversed? First it is necessary to study the new situations in agriculture following institution of systems of responsibility, and to strengthen leadership of the pig raising industry. Following the 3rd Plenary Session of the 11th Party Central Committee, this prefecture has corrected the former leftist ideology of taking hogs as the key link, and the breeding industry has flourished. However, when some leadership cadres have encountered new contradictions and new problems in the raising of hogs, they have not promptly studied and solved them. Some have even abandoned leadership of the hog raising industry, onesidedly supposing that now that the land had been contracted to individual households, hog raising was a matter for individual commune members. In some communes and brigades a situation has emerged in which no one takes charge of the collective raising of hogs, and no support is given individual raising of hogs, so that hog raising is virtually in a state of limbo. In some production teams that practice a system of responsibility of "double contracting," collective hog raising has been entirely dispensed with. Now, the Langfang Prefecture CCP Committee and provincial administrative offices are emphasizing taking hog raising in hand as a mainstay project in rural economic diversification, reviving the former workable and effective management methods and administrative organizations, again designating special people to take charge of hog raising, and establishing a system of economic

responsibility. In addition, they are also preparing to help some communes and brigades with proper conditions to establish commodity hog bases and shoat breeding bases, for a continuation of the practice whereby brigades do the breeding and households do the raising to get results in a short period of time.

Second is the consolidation of policies relating to bonuses and award sales for raising hogs to encourage collectives and individuals to raise more and sell more. In 1981 a substantial number of production brigades and production teams lowered bonus standards and eliminated the bonus system, and limited hog raising on the basis of population, which dampened the enthusiasm of the masses for hog raising. 1981, households in the prefectures raising no hogs rose from somewhat more than 60,000 in 1980 to 110,000, lowering the amount of hog raising in the prefecture as a whole. In Dacheng County, 69 percent of production brigades and 77 percent of production teams abolished their policy of issuing bonuses for hog raising. Bonus grain and bonus workpoints issued for summer hog raising in the county amounted to only 13 percent of the 1980 amount. As a result, as of the end of 1981, hogs in inventory had declined 12,350 head from 1980. This situation has aroused the serious concern of the Langfang Prefecture CCP Committee and government administrative offices, who have renewed and formulated bonuses and award sales for hog raising. They have made a special point of protecting hog breeding and have implemented these measures quickly in order to win the confidence of the people.

Third is clearing of circulation channels to help commune members sell their hogs. Since 1979, this prefecture has had "difficulties in selling hogs" during June, July and August. Because prefectural units concerned instituted a system whereby procurement quotas were set on the basis of sales, many fattened hogs that should have been sold did not sell. In Xianghe County, from 1 June onward, live hog procurement points were reduced from 17 to 7, and a limit of 20 head procured each day was set. This restriction remained in force until October. This resulted in a loss of hogs to other areas or keeping them in sties, creating economic losses for the country, the collective and individuals, and impairing the enthusiasm of the masses for hog raising. Beginning in the fourth quarter of 1981, prefecture and county live hog procurement units used all possible means to solve the problem of "difficulties in selling hogs." Taking in hand both procurement and sales, with the help of the concerned provincial units, they several times consulted with and signed agreements with Beijing and Tianjin markets. This year they are preparing to overpurchase live hogs, and the problem of "difficulties in selling hogs" should be substantially solved. In addition, all counties are to revive their former live hog procurement points to help the masses sell their hogs nearby for a steady expansion of city and country markets for sales.

9432

#### SCIENTIFIC FARMING METHODS PRODUCE BUMPER YIELDS IN TEST FIFIDS

Beijing GUANGMING RIBAO in Chinese 14 Feb 82 p 2

[Article by Lin Yutang [5677 3768 1016] and Lu Shiqi [7627 1102 3444]:
"Science Has Entered the Responsibility Fields; Grain and Cotton Has
Increased and Earnings Are Greater. Bumper Yields Harvested from 600,000
Mu of Multiple Demonstration Fields in Hebei Province; Economic Benefits
25 Times Greater Than Investment in Technology"]

[Text] Recently the Hebei Provincial Science Commission decided to enlarge and spread agricultural technology demonstration fields this year. Last year, acting on the basis of different natural conditions in individual areas, the Provincial Science Commission adapted general methods to local conditions in 22 counties to lay out 600,000 mu of demonstration fields for promotion of multiple agricultural techniques, prompting 45 new agricultural techniques and new achievements. Despite continuance of unfavorable climatic conditions including drought, low temperatures, and early frost, bumper yields of grain, cotton, oil-bearing crops, and fruits were harvested. Comparison with control fields having the same water and fertilizer conditions showed 20 to 30 percent yield increases, and economic benefits equivalent to 25 times the technological investment.

Jimian No 2 and Lumian No 1, two new cotton varieties, were extended to cultivation on 188,200 mu of cottonfields in 9 counties including Zhengding, Yongnian, Hejian, and Gucheng, and use of new pesticides and chemical ripeners, scientific care, and skillful watering and fertilization during crucial periods of growth were also promoted as part of 12 new techniques. Yields per mu averaged increases of from 23 to 25 percent as compared with control fields. Following a general soil survey, Sanhe County focused on the soil's serious lack of phosphate, promoting new techniques in scientific fertilization with phosphate on 140,000 mu of land in 8 communes for wheat yields averaging increases of from 64 to 95 jin.

Last year Funing County suffered serious drought. On 20,000 mu of paddyfields they promoted early seedling propagation, shallow plowing, chemical weeding, restructuring of fine varieties, and such new techniques. In a year of great drought, paddy rice yields averaged yields of 961 jin per mu, a 19.2 percent increase in yields over control fields. Net earnings amounted to 7.6 times the investment in technology.

Qing County, located in the Hai He basin, has more than 300,000 mu of saline-alkaline soil on which formerly only grain was grown, producing yields averaging no more than 100 jin per mu. They summarized experiences with test plantings of sunflowers during the past several years, and promoted planting of 20,000 my of saline-alkaline land to new varieties of sunflowers that tolerate salinity and alkalinity, tolerate drought, and have high economic value as well. They also spread new techniques of sowing seeds at the right time so that the period of flowering would miss the rainy season, the pollination rate being increased thereby for sunflower seed yields of 152 jin per mu and economic benefits from 3 to 4 times those obtained from the growing of grain.

#### NUNJIANG ADHERES TO STATE PLAN IN CROP PRODUCTION

Harbin HEILONGJIANG RIBAO in Chinese 22 Feb 82 p 1

[Article: "Nunjiang Prefecture Maintains the Proper Ratio Between Grain and Cash Crop Production According to the State Plan"]

[Text] Acting under the guidance of the state plan and strictly adhering to the ratio for the planting of grain and cash crops, Nunjiang Prefecture has been able to increase both production and income, to produce food as well as a profit, and to meet overall as well as local needs.

An important food production area, Nunjiang is also well suited for the development of such cash crops as sugar beets and sunflower. Under the erstwhile "leftist" influence for a long period of time, Nunjiang had caused a serious imbalance in the agricultural situation by putting too much emphasis on food production. Since the Third Plenary Session of the 11th Party Central Committee, however, Nunjiang has reversed its position of putting emphasis on grain production and has correctly readjusted its agricultural economic system in accordance with the policy of "not relaxing efforts to develop food production, but developing diversified operations in a positive manner." By 1981, Nunjiang had increased the acreage for cash crops to 3.21 million mu, an increase of 1.71 million mu over the acreage for 1979, or 14.3 percent of the acreage of the cultivated land. By the end of the year, food production had increased by 16 percent compared to the figure for the previous year; the amount of grain for exchange purposes had increased by 15.3 percent; and cash crops showed a further increase over the figure for 1979, on top of the increase of 70 percent for 1980. The average collective income for each commune member came to 126.7 yuan, the highest ever recorded.

While setting the proper ratio for the planting of grain and cash crops for this year and combating the tendency on the part of certain cadres in the production teams to favor the planting of a variety of cash crops for profit, Nunjiang Prefecture made it very clear that while it is wrong to place emphasis exclusively on grain production, it is also wrong to overlook its importance, let alone to neglect the production of grain for the sake of making a profit. While the nation is still plagued by a shortage of grain, efforts should be made to remedy the shortage. The overplanting of sunflower by some production teams last year has had an adverse effect on grain production. While drawing up plans for agricultural production for 1982, the party committee in Nunjiang proposed that the production teams should reduce to a reasonable level the acreage planted in sunflower, should set the acreage for the planting of grain and cash crops for the entire area, and should maintain the existing level during the next few years. It is only when there is agreement among the pro-

duction teams on how readjustments should be made on the basis of actual circumstances, such as permitting impoverished production teams to engage in the planting of cash crops, that the situation of impoverishment can be brought to a speedy end.

Under the guidance of the state plan, efforts should be made to approach the matter of planting in a logical manner, to set up a reasonable ratio for the planting of grain and cash crops, and to increase the rate of profits from the available acreage. The relevant departments in the prefecture should assist the commune production teams and commune members in the various counties to dedicate themselves to the establishment and perfection of the various forms of the production responsibility system, to strengthen the administration of operations, and to develop fully the positive attitude of the communes collectively and the commune members individually. In the production of cash crops, efforts should also be made to organize professional teams, professional units, professional families, and professional individuals; to put into practice the responsibility system of paying each according to his work; and to strengthen the administration of cash crop production.

9621

#### PREPARATIONS FOR A NEW YEAR OF FARMING URGED

Shenyang LIAONING RIBAO in Chinese 19 Feb 82 p 1

[Article: "Earnestly Do a Good Job of Spring Farming and Grain Production. Provincial CCP Committee and Provincial Government Issue Instructions"]

[Text] The lunar new year has passed and the busy season of spring farming and production will soon be here. So that greater development will take place in Liaoning Province's agricultural production this year, all levels of CCP committees and government, as well as the braod masses, should immediately act and nor lose the opportunity to prepare to farm, and to do spring farming and production.

1. There should be diligent implementation of the summary of minutes of the national rural work conference, and further perfection and implementation of production responsibility systems. As of now an overwhelming majority of communes and brigades in the province have instituted production responsibility systems, which require consolidation and no further changes. Where responsibility systems have not been implemented, discussions should be held with the masses. If views differ, there can be full discussion, the forms of responsibility systems about which an overwhelming majority of commune members agree being selected and put into operation as quickly as possible.

Agricultural production should continue to adhere to program of taking the planned economy as the key link, with market regulation being supplementary. All jurisdictions should rapidly institute agricultural production planning. Brigade and commune cadres as well as commune members should be indoctrinated in obedience to state plans, attention given to surmounting and correcting situations of separation from state plan guidance. However, there should be no recurrence of the former old defect of stultifying uniformity at the mere mention of obedience to state plans. Joint discussions and signing of state purchase and quota purchase contracts between the state and collectives or individual commune members are concrete embodiments of taking the planned economy as the key link and obedience to state plans. If only collectives or commune members fulfill state purchase and quota purchase contracts, it will not be necessary for the state to interfere excessively, and portions that collectives or individual commune members are permitted to work will be given active help.

- 2. While assuring steady increase in grain production, it is necessary to actively launch economic diversification, promoting the all-around development of farming, forestry, livestock raising, sideline enterprises, and fisheries. Following several years of readjustment the province's agricultural crop patterns tend to be equitable in the main, requiring no further changes. key to development of grain and economic crops lies in increase in yields per unit of area. Except for individual places in which proper readjustment has not yet been made, the area sown to grain should mostly be maintained as it is with no further reduction. Close-in suburbs should take vegetable production as the key link, and diligently do a good job of vegetable production. It is necessary to make equitable use of various resources. broaden production avenues, and actively develop economic diversification into forestry, livestock raising, sideline occupations, fisheries, and industry. Clearing of land for agriculture on mountain slopes and pastoral area grasslands is to be strictly prohibited, and those destroying resources or water and soil conservation are to be dealt with severely.
- 3. Need for strict attention to combat against drought and preservation of soil moisture to assure timely sowing. The western part of Liaoning Province has had 2 consecutive years of drought and the soil is seriously devoid of moisture. In other areas too, because of the scant rain and snow last fall and winter, a spring drought will take place. In the central Huntai region of Liaoning, reservoir water storage is 330 million cubic meters less than for the same period last year. It is the year of least water storage since 1979. Triumph over drought and the scarcity of water have become key problems in most parts of the province in deciding whether planting can be done on time. All locales should fully realize this and take resolute measures to do a good job of combat against drought, make full use of existing water sources for spring irrigation, do a good job of raking and compacting to conserve soil moisture, do plowing and ridging [in early spring when soil moisture is at the highest point], rush plant to take advantage of soil moisture, and assure prompt sowing of seeds. Combat against drought must both be taken firmly in hand and also proceed from realities, with striving for economic benefits, adaptation of general methods to local situations, and sensible arrangements. Some seeds must also be set aside for late planting of fields. Central region wetland areas should adopt effective measures for planned use of water. equitable use of water, conservation in the use of water, and for development of sources and restriction of flow. They should make full use of existing pump wells, but should strictly control the addition of new wetlands. They should actively spread the successful experiences of many years in combating drought on wetlands, strive to plant wetland fields at once, and take good care of them. Low-lying areas prone to waterlogging should organize forces to build terraces, and to clear silt from ditches along field rows and from drainage and irrigation ditches.
- 4. Diligent attention to spring farming and production materials preparation work. This year a shortage of fertilizer continues in the province, and phosphate fertilizer is very scarce. All locales should direct serious attention to this matter. They should arouse and organize the masses for vigorous development of a campaign to accumulate farmyard manure. The

industrial sector should do everything possible to produce more chemical fertilizer, plastic sheeting, and highly effective pesticides of low residual toxicity. Attention should be devoted to organization of units concerned to manufacture and promptly supply small farm tools. A good job should be done of selecting seeds and of transfering surpluses to places having shortages, to livestock innoculations, to springtime afforestation, and to inspection and repair of fishing boats and nets. Farm machinery should be promptly i nspected and repaired. Responsibility systems for farm machinery linking output to calculation of compensation should be rapidly established, and key mechanized production brigades set up. This year should bring new breakthroughs in the sowing of seeds, the transplanting of seedlings, cultivation and weeding, prevention and control of diseases and insect pests, and in combat against disasters. Commercial, supply and marketing, and banking units should promptly supply the materials and the credit needed for spring farming and production work.

- 5. Science and technology should be vigorously popularized and spread, and action to increase agricultural production vigorously taken. All jurisdictions should respond to the new situation of urgent demands by the broad masses of peasants to study science and to use science, and adopt various methods of popularizing agricultural scientific knowledge for all-around improvement in the level of agricultural production techniques. Existing scientific and technical accomplishments should be spread, and advanced scientific and technical accomplishments should be translated into direct productivity. Places and stations for the promotion of technology having requisite conditions can set up technical contract agreement systems with production teams, organizations, and specialized households. During the stage of preparing to farm, level by level peasant technical mainstay cadre training classes should be run to summarize and promote science and technology and advanced experiences in farming, forestry, livestock raising, sideline occupations, and fisheries to meet this year's needs for all-around development of agricultural production.
- 6. Need to strengthen leadership of preparations for farming and spring farming work. Plans for the entire year depend on the springtime. The work of preparing for and doing spring farming directly relates to agricultural production for the entire year. All levels of the people's government must make preparation for farming and spring farming the central task in rural areas at the moment, and conscientiously strengthen leadership. All rural work should center around and be subordinate to preparation for farming, and spring farming and production. All levels of leadership cadres should go down to villages in order to promptly understand and solve problems in preparing for farming and spring farming. All trades and industries must support rural villages to do a good job of preparations for farming and spring farming. Disaster areas should closely link arrangements for the livelihood of the masses with preparations for farming and spring farming and production. Cadres should be indoctrinated and the broad masses of people aroused to continue to go all out, to carry forward the fine work style of arduous struggle, and to do all work better than it has been done in previous years to win a greater bumper harvest in agricultural production this year.

9432

FORESTRY SPECIALISTS ISSUE CALL TO SAVE FORESTS

Xian SHAANXI RIBAO in Chinese 22 Feb 82 pp 1, 2

[Text] A survey report, "Flood and Forestry", written by 20 specialists, professors, and scientists of forestry, water conservancy, and environmental protection provides facts to prove that the destruction of forest vegetative cover will lead to a loss of ecological balance, the deterioration of the environment, and endless after effects, and the extraordinarily severe flood of the western part of Qinba Mountains of Shaanxi serves to prove their point. In the report, the specialists made an urgent appeal to save the forests. They also offered a 5-point proposal regarding forestry construction.

This survey project was organized by the Provincial Bureau of Forestry and the Provincial Forestry Society. The report was written following an on-site inspection, survey, and interview tour of the flood damaged 8 counties and 1 city in Hanzhou and Baoji.

The Lower the Forest Cover, the More Severe is the Flood Disaster and the Greater are the Lesses

The survey report states that the flood disaster of last year in the regions of Qinling and western Bashan takes the following form: In low hill areas of very few trees, aside from the destruction of some dwellings and lands along the banks of streams, the more serious situation is the severe erosion everywhere. Landslips, cave-ins, and mud-rock flows are the cause of disastrous losses of lives and properties. In Pingchuan Prefecture, the torrents rise and rivers overflow, the dikes break, and many farms and villages are inundated to result in gigantic economic losses. According to historical data, this flood is by no means the worst in history, however. On 26 July 1890, the Jialingjiang River rose suddenly in Lyueyang County to cause the county courthouse to be in 3 chi deep of water. A marker is still on the pillar to record the water level. The marker recording the current flood is 84 cm lower than the one in 1890. In Hanjiang, the greatest flow volume in 1964 was 5,650 m /sec and that of last year was only 4,810 m /sec. The frequency of floods in these 2 places has also been increased. Before the liberation, it was one flood every 28 years; now it averages once every 5 years.

Why is it that the flood is by no means the largest but the damage is so extraordinarily severe? Why is it that the frequency of floods has increased? The following comparative data are provided in the report:

Name of County	Rate of Forest Cover (%)	Rainfall From 1-25 August (mm)	Losses (10,000 yuan)
Taibai	77.8	509.6	2026
Liuba	58.8	572.0	1839
Fengxian	42.6	363.8 about	8000
Lyuyuang	31.6	627.5	5671
Ningqiang	26.1	528.0	8196

It may thus be observed that the rainfall is the direct reason for the disaster, but the extent of the disaster caused by the rain, the size of the loss, etc. are all closely related to the forest cover. The forest coverage is the highest in Taibai and Liuba counties, the rainfall was large, but the losses were the smallest. Lyueyang and Ningqiang counties are the opposite. Their forest coverage is the smallest, the rainfall is similar, but the losses are 1 to several times those of Taibai and Liuba.

Why do Mud-rock Flows and Landslips Run Wild?

From on site inspections, the specialists discovered that mud-rock flows and land-slips of hillsides resulting from heavy rains are the major form of disaster in the mountain regions. According to incomplete statistics of the 5 counties of Mianxian, Lyueyang, Ningqiang, Nanzheng, and Liuba, mud-rock flows and landslips occurred more than 10,000 times. On 2 Sep last year, a giant landslip occurred in Minzhu Brigade No 4 of Changgouhe Commune, Mianxian, measuring 400 m in height and 300 m in width, amounting to 2 million m of mud and stone. It came down so suddenly it buried 49 dwellings and destroyed 56 mu of fields. On the ground, the mud and stone pile became a large dam of 30 m in height, 200 m in width, and 250 m in length to block the water of the stream and to accumulate 100 thousand m of water on top of 36 mu of fields to make that area into a reservoir.

Along the Fengzhou Section of the Baoji Railway, there were landslips in 92 places and in 44 places the roadbed was destroyed. Ten large and medium bridges were knocked down and 3 railway stations were buried. The operation of Baoji Railway was interrupted for as long as 2 months.

The survey report states that the complex geological structure of Qinling and Bashan, the steep mountain slopes, the great drop of ravines, and the very changeable terrain are all factors contributing to the easy occurrence of mud-rock flows and landslips. Last year's large storms is the natural factor which produces them, but the abusive logging practices of many years, the destruction of forests for cropping, and the disregard for water and soil conservation have led to the certainty of their occurrence and amplified their destructive force. When a large area of land loses its forest vegetation protection, the runoff on the mountain slopes pours down in a heavy rain to form swift streams to cut the land and dig up the slopes of ravines so that a localized body of the mountain loses balance and collapses into mudrock flows and landslips. The report compares the relationship between vegetative cover and landslide in the various regions of Ningqiang County: In Daijiaba Region, the coverage is 32 percent, landslides occur in 2,966 places; in Yangping Region, the coverage is 32.6 percent, landslides occur in 1,273 places; in Tiezhen Region

the coverage is 51 percent, landslides occur in 393 places; in Bashan Region, the coverage is 52.9 percent, landslides occur in 361 places. In Beiba, Zhongshan areas of Nanzheng County, the ancient granite has a weathered layer 2 m deep. This is where mud-rock flows can occur very easily, but the forest coverage is 62.3 percent and very little landslide occurs. On the road from Xiaoba to Xihe Commune, the specialists traveled more than 40 km and only saw 2 places of mild landslips. In the 690 thousand mu area, which is Beiba Forest, there was not a single dwelling destroyed by either landslides or torrents. According to the Department of Meteorology, the storm center was in the northwestern part of Sichuan and southeastern part of Gansu. It came down southward through Baishuijiang of Shaanxi to Lyuyang, Yangpingguan, and the southern part of Ningqiang before turning to Nanjiang County of Sichuan and the Beiba Region of Zhengxian County of Shaanxi. Fengxian of Bao ji Prefecture is located outside of this boundary, but the condition of disaster is frightful. It is rather worst than Ningqiang, Lyueyang, and Mianxian. The specialists climbed up the Chaiguanling Range on the Baohan Highway and were able to observe the startling difference between the north and the south of the range. To the south, Zibai Mountain in Liuba County is covered densely with forests and almost no trace of flood damage is observable. To the north, in Fengxian County, landslips and mud-rock flows are everywhere.

Deforestation for Cropping Has Caused Erosion of Large Areas

The practice of destroying the forest and turning it into fields or enlarging the cropland through abusive reclamation is also an important reason for the flood disaster. The forests of the mountains of Qinling and Bashan have been repeatedly devastated by large area reclamation projects throughout history. After the liberation, the party and the government issued laws and orders to forbid destroying forests to crop the land but the practice has never been stopped. On the contrary, it is getting more and more devastating. According to the estimate of a related department in Hanzhong Prefecture, in these 30+ years, the reclaimed area is more than 2 million mu. After the forest vegetation is destroyed, large pieces of land are nakedly exposed. Every time it rains, the rain drops erode the soil and the runoff washes the soil away. Additionally, sloped cropland is less previous and can hardly store water. In this manner, a heavy rain causes a great disaster, and light rain causes a little disaster, and no rain causes a drought. Zhenba County is big in reclamation. From 1950 to 1980, 644,000 mu were thus reclaimed. The rainfall of Aug 81 was only 345 mm to make that county an area of very little rain in all of Hanzhong Prefecture, but 236,500 mu there were damaged and 20,000 mu of these were destroyed. The Aug rainfall last year in Liuba County was close to that of Ninggiang County, but 87 percent heavier than Zhenba County, but there has been very little reclamation and the forest coverage is as high as 75.6 percent; therefore, the damage is much milder.

With the increase of reclamation index, the area of sloped cropland is larger and the vegetative cover is poorer. Every storm flushes off a large quantity of mud and sand to add to the silt carrying quantity of the streams. According to the actual measurement records of the past 24 years of Wuzhen Hydrological Station of Mianxian, above Wuhouzhen of Mianxian, the Hanjiang River carries 2.49 million tons of silt a year on the average, reaching 8.66 million tons in the highest year. The annual erosion modulus is 804 ton/km² to 2,100 ton/km². Soil erosion of the Jialingjiang Valley is even more severe. According to an analysis of the 34-year data

of Lyueyang Hydrological Station, Jialingjiang carries an average of 32.3 million tons of silt a year, 27.4 million tons in the highest year. The annual erosion modulus is 1,680 ton/km, 4,030 ton/km in the highest year. This severe an erosion problem is comparable with the problem of the loessial plateau to the north of Huihe. The land is flushed to become thinner and thinner; the riverbed is silted to become higher and higher; and the flood disaster becomes more and more severe.

# Five Proposals To Save the Forests

Specialists of the survey group point out: The Qinling Bashan region had once been in the past a place of trees and grass in profusion. The mountains were green and the waters were clear. There was no erosion. After the liberation, under the guidance of the party and the government, there was some afforestation efforts in areas of Hanzhong and Baoji but the force of historical tradition and the influence of the leftist errors caused terrible destruction of the forest vegetation. The forest ecological system of Qinling and Bashan could no longer withstand the attack. At present, the extent of erosion of this region is not yet as severe as that of the loessial region of northern Shaanxi, but the results are even more serious. This is due to the fact that in northern Shaanxi there is a thick layer of loess while in the region of Qinling and Bashan there is only a thin layer of soil. Once this layer is washed away, there will just be the bare rocks, difficult to change in thousands of years and the basic condition for agricultural production will have been lost. The specialists of the survey group, the professors, and the scientists are making this urgent appeal just for this reason. In their report, the following 5 proposals are also presented:

- (1) The region of Qinling and Bashan are high mountains and steep slopes. The soil is rather thin and the geological structure is complex. This is one of the several areas of the country where mud-rock flows occur easily during storms. It is also the origin of several major streams, such as Jialingjiang and Hanjiang of the middle reaches of Changjiang. It is; therefore, necessary to forbid abusive logging to protect and manage the remaining forests. With management and reconstruction, the forest structure should be gradually reformed to improve its quality. There should be planned afforestation and renewal to nurture a forest reserve and to enlarge the forest coverage. The forest resources should be surveyed and the trees classified to provide a basis for designing a reasonable logging and utilization plan. Large area total logging and concentrated excessive harvesting should be prohibited.
- (2) The ownership authority of the mountain forests should be clearly designated to reform the forest management system. For the State owned forests, forestry bureaus should be established according to a readjusted natural divisions to be managed by the provincial government in a unified manner. The current system of separation between the forest industry and the forest management must be changed. Harvesting, cultivation, and afforestation should be combined in the organizational structure and the management system. Forests belonging to the collectives should be managed by the forestry department of the prefecture or the county and there should be a unified and strict management system. There must be a procedure of granting permits before the communes, brigades, or their members are allowed to cut trees.
- (3) Destroying forests for cropping should be strictly forbidden. The steep slopes must not be used for cultivating crops. Protection of the forest vegetation must be strengthened. There should be propaganda to teach the importance of preserving the ecological balance of nature. Those who destroy forests for cropping should be punished by law. The law must be clear and concrete so that it can be enforced.

- (4) There should be an overall plan to control the mountains and streams together. In the remote mountains, the plan should mainly be afforestation and nurturing the sources of water. In the low mountains and hills, economic forests should be quickly developed to produce firewood and other usable timber. In matters of river and stream management, the principle of combining biological measures with engineering measures must be implemented. When dikes and dams are being constructed, protective forests should be planted so as to reap the maximum protective benefits. The work of water and soil conservation of the southern part of Shaanxi must be strengthened and a water conservancy organization must be established in order to carry out the work well.
- (5) Scientific research should be strengthened to study the natural ecological system of these mountains and the effects of human activities on the ecological system, to study the structural characteristics, the function, and especially the load capacity of the forest system with respect to economic activities, and to study the reasonable way of managing the natural resources, their development, and utilization. These studies will provide a scientific basis for developing the natural resources of the Qinling Bashan region and to preserve its ecological balance.

SHAANXI

### DEVELOPMENT OF FAVORABLE CONDITIONS FOR PIG RAISING

Xian SHAANXI RIBAO in Chinese 21 Jan 82 p 2

[Article by Commentator: "Consolidate and Develop Favorable Conditions for Pig Raising"]

[Text] Since the Third Plenary Session of the 11th Party Central Committee, pig raising in our province has developed at a steady pace and the outlook is most favorable. Since 1979, there has been a large increase both in the number of pigs out of inventory as well as in the quantity of meat produced. There is enough pork not only to meet the needs of the province but also to supply other provinces. There are signs, however, that pig raising is in a downward trend, as the number of sows and pigs in stud is being sharply reduced. By the end of November 1981, the number of sows throughout the province had dropped by 350,000, while there were only 1 million pigs in stud. There was, on average, only 1 male pig for every 35 sows. Unless this problem is promptly dealt with, it is likely that the number of pigs will continue to decline and that a shortage of pork will occur. The governments at various levels must therefore keep a clear head and take prompt measures to consolidate and develop favorable conditions for pig raising.

While there are many factors accounting for the downward trend in pig raising, the main reason is the shortage of animal feed as a result of reduced autumn crop production. The "difficulty of selling pigs" has greatly damaged the positive attitude of the peasants for raising pigs. Another reason may be attributed to the fact that those in leadership positions at various levels failed to foresee the new situation which would arise with the implementation of the responsibility system in agricultural production and to exercise their leadership in pig raising in a vigorous manner. To reverse the downward trend and maintain this year's level at approximately that of last year, it is absolutely necessary that the various levels of government as well as the concerned departments should regard pig raising as a matter of major importance.

The primary requisite for the development of the pig-raising industry is to increase the number of pigs in stud as well as the number of sows in order to ensure the supply of pigs. Every area where 7 to 10 families do not have a sow for breeding purposes and where there is not an average of 1 male pig for every 25 sows must take positive steps to remedy the situation. Those areas where the number of sows is particularly small must "keep all sows in stock

without being selective" in order to increase the number of pigs. Stateoperated food stations, livestock veterinary stations, and breeding stations
which have the means to do so must take it upon themselves to breed male pigs.
Pig-raising collectives must give priority to the raising of male pigs and sows
and supply piglets to the commune members. At the same time, in meeting the new
situation that is accompanying the implementation of the responsibility system
in agricultural production, they must actively promote the raising of sows by
commune members and offer them whatever assistance they may need. They must
exercise strict control over the outflow of sows and place a ban on the indiscriminate slaughtering of pigs and the castrating of male pigs. Peddlers must
not be allowed to engage in the selling of sows.

The policy on pig raising must be strictly enforced. The series of policies which have been adopted in the past must continue to be implemented and must not be allowed to lapse or to be altered. Those production teams with household production contracts but where the households do not have a collective stock of grain must raise a supply of grain according to the size of the cultivated land or the production contract quota so as to ensure the sale to the commune members of animal feed for pigs. The various areas must also adopt the method of awarding brisk-selling industrial products to the production teams and professional breeders or of allowing them to buy such products in order to encourage them to make an extra effort in the raising and selling of The production teams are to be responsible for purchasing to meet the purchasing quota set by the government. In implementing the responsibility system in agricultural production, the production teams must assign to units and families the job of breeding. The government's food departments and the production teams must sign contracts setting the purchase quotas and stipulating the responsibilities and benefits for both parties. Contract terms must be met. Any party that fails to fulfill the terms of the contract must be held responsible for the losses incurred. The purchasing departments in various areas must improve their style of doing business and the way they go about purchasing pigs. For the convenience of the masses, they may go to the sellers to make advance payments. At the present time, pigs held in stock by the masses must be purchased without delay. In the future, when pigs have reached the standard size for selling, food departments must not refuse to buy them or deliverately lower the grade of the pigs and the purchase price and thereby make things difficult for the masses. The "difficulty of selling pigs" must not be allowed to happen again. After the pig-raising production teams and the commune members have met the quota set by the government for the sale of pigs, they may be permitted to sell the surplus to the government, or they may be given a permit by the food stations to slaughter the pigs for their own use, to be shared or to be sold. The price, however, must not be raised. The small number of speculators must be sternly dealt with according to the law.

9621

SHANXI

### BRIEFS

GOVERNMENT SUPPORT—In order to reverse as soon as possible the downward trend in pig production and to ensure the supply of vegetables to the cities and mining areas, the provincial government has authorized the departments of finance and agriculture to allocate 1 million and 2 million yuan, respectively, to support the raising of stud pigs and sows and the production of vegetables. The provincial departments of finance and agriculture have recently made such funds available to the concerned regions and cities and have sent out notices requesting the production teams in the communes to continue to adhere strictly to the principle of primarily emphasizing self—reliance and counting on government support as a secondary measure, to ensure that the special funds are used for their designated purposes, to strive for the achievement of economic benefits, and to refrain from misappropriation and waste. [Text] [Article by Zhao Bingan [6392 4426 1344]] [Taiyuan SHANXI RIBAO in Chinese 26 Feb 82 p 1] 9621

## ILLEGAL SUGAR PROFITEERING PUNISHED

Chengdu SICHUAN RIBAO in Chinese 30 Jan 82 p 1

[Article by Shen Wuzhong [3476 2976 1813]: "Resale of Sugar at High Price Brings Economic Punishment to Daxian Prefecture Units"]

[Text] Acting in coordination with municipal and county price units and industrial and commercial departments, the Daxian Prefecture Commodity Price Commission has meted out economic punishments to individual units that had resold sugar at high prices.

On two occasions in September 1981, the Zhaojia Amalgamated Industrial and Commercial Fruit Company in Daxian Prefecture bought 24.300 jin of sugar from Binlang Commune enterprises in Daxian at 0.80 to 0.81 yuan per jin and passed it along at the high price of 0.90 to 0.92 yuan to Daxian farms. Dazhu County commune and brigade enterprises, and to Bazhong County agricultural, industrial, and commercial units. It also sold some in Daxian markets at a retail price that was 0.24 yuan per jin higher than the national list price. After the Municipal Industrial and Commercial Bureau called a halt, it refused to change and sold another 1,500 jin of sugar. As a result of the aforementioned transactions, this company illegally gained a profit of 2.158 yuan. Acting in accordance with price policies, the prefecture and municipal commodity price commissions confiscated these illegal profits, and fined the company 700 yuan. Orders were also issued for the transfer at list price to beekeeping farms and horticultural farms in the prefecture for use in production 5,600 jin of sugar that had been frozen to offset state plan supply quotas.

The supply and marketing managing department for Weijia Commune enterprises in Dixian illegally bought 8,000 jin of sugar from outside the province, which it then sold at high prices and passed along to the Dixian commune and brigade enterprises supply and marketing company, deriving 609 yuan in illegal profits from the deals. The supply and marketing company, in turn, made wholesale sales to some retail outlets in Daxian Municipality, making a profit of 250 unit therefrom. The Prefecture Commodity Price Commission decided to confiscate the illegal profits in entirety, to fine the supply and marketing management department of Weijia Commune enterprises 300 yuan, and to fine the supply and marketing company of Dixian Commune and brigade enterprises 200 yuan.

9432

### SITUATION REPORT GIVEN ON THREE LIVESTOCK RAISING ZHOUS

Chengdu SICHUAN RIBAO in Chinese 28 Jan 82 p 1

[Article by Grasslands Department, Provincial Animal Husbandry Bureau: "Ganzi, Aba, and Liangshan Zhou Animal Husbandry Industry Production Situation Good. Various Forms of Responsibility Systems Established; Scientific Livestock Raising Practiced"]

[Text] Guided by the spirit of the 3rd Plenary Session of the 11th Party Central Committee, party and government units at all levels in Ganzi, Aba, and Liangshan Zhou continue to carry out the spirit of the Provincial CCP Committee Sanzhou Work Conference, to implement production programs, to establish production responsibility systems, and to practice scientific livestock raising for a fine situation in animal husbandry production. In 1981, livestock on inventory numbered 13,352,000, and livestock removed from inventory numbered 2,149,000, a 357,000 head increase over 1980, for a meat output of 129,070,000 jin, which was an increase of 65.75 million jin. Large livestock animals, sheep and goats raised by herdsmen or peasant commune member households numbered 3.27 million, a 19 percent increase over 1980.

Production accounting units in more than 90 percent of the rural communes and production brigades in these three zhou have established various forms of animal husbandry responsibility systems linked to output. In pastoral areas, mostly responsibility systems of specialized contracting, fixing output quotas based on groups, on individual workers, or on households have been established under uniform management, with "five fixeds and one reward", calculation of compensation linked to output. In semi-farming semi-pastoral areas, responsibility systems of "double contracting" and linking output to groups have been instituted. In addition, responsibility systems linked to output have been combined with technical promotion responsibility systems and cadre personal responsibility systems, which has helped implementation of various production measures and the promotion of science and technology, not only promoting livestock industry production, but also enhancing the building of the grasslands. Building of man-made grasslands amount to 77,000 mu; improved grasslands amount to 258,000 mu; and establishment of fine variety pasture grass bases amounts to more than 10,000 mu. Rodents and insects have been exterminated on more than 2 million mu. In 1981 operation of integrated herding, industrial, and commercial businesses increased. In 1981, the

Ruoergai Integrated Herding, Industrial, and Commercial Enterprise made profits of 2.81 million yuan for an average increase of 22.3 yuan per capita of the population engaged in agriculture and livestock raising. Hongyuan County's operations had 1.3 million yuan profits from sales in excess of plan from livestock product processing. Cadres and commune members said, "Taking the path of integrated herding, industrial, and commercial business benefits the state, the collective, and individuals, and is the path by which nationality areas cure poverty and become wealthy." In addition, Key livestock raising households and specialized households have begun to develop. Ma Yongming [7456 3057 2494], commune member from Waibei Commune in Huili County raised 80 sheep, seven large livestock, eight hogs, and 14 hives of bees for earnings in 1981 of about 4,000 yuan.

At the present time, the three zhous are in process of further implementing various party programs and policies for semi-agricultural semi-pastoral areas, and doing a solid job in the overwintering of livestock into spring to hasten development of the livestock industry.

READJUSTMENT OF CROP PATTERNS. DIVERSIFICATION CREDITED FOR GREATER OUTPUT

Chengdu SICHUAN RIBAO in Chinese 29 Jan 82 p 1

[Article by Correspondent Ceng Xudong [2582 2385 2639]: "All-around Bumper Harvest for Liangshan Zhou Last Year. Equitable Readjustment of Internal Structure of Agriculture and Crop Patterns"]

[Text] Liangshan Yi Nationality Autonomous Zhou equitably readjusted the international structure of its agriculture and its crop patterns to win an all-around bumper harvest in agriculture during 1981. Throughout the zhou grain output increased and economic diversification developed fairly rapidly, output of staples such as sugarcane, tobacco, rape seed, silkworm cocoons, livestock and aquatic products increasing by from 2.9 to 39.3 percent.

In Liangshan Zhou, which is inhabited by more than 20 different nationalities, among them the Yi and the Han, though the mountains are huge, ravines deep. and climate complex, there are semi-tropical low hills and river valleys that produce mostly paddy rice and sugarcane. There are vast medium size mountain and semi-mountainous areas that produce prolific amounts of rice, wheat, and tobacco. There are vast tracts of frigid and temperate zone high semimountainous regions where water plants abound, and where grain as well as forestry and the livestock industry can be developed. There are frigid zone high mountain regions with dense forests and broad grasslands, and there are more than 340,000 mu of freshwater water surfaces. In 1981, all levels of party and government units throughout the zhou vigorously implemented a production program of "taking forestry and livestock raising as the key link in a combination of farming, forestry, and livestock raising for all-around development of economic diversification." They steadily carried out a readjustment of the internal structure of agriculture and crop patterns, and proceeded from realities to make suitable reductions in the areas sown to wheat, rice, and potatoes, using it for expansion of the growing of economic crops such as rape, sugarcane, tobacco, soybeans, and hot peppers, and for the reversion of cultivated land to forests and pasturage. They farmed scientifically, and not only did grain yields per unit of area rise tremendously, but total output also exceeded that of the preceding year. Moreover, income from economic diversification into forestry, livestock raising, sideline occupations, and fisheries increased 31.3 percent over the previous year.

9432

### INCREASED DIVERSIFICATION IN AGRICULTURE REPORTED

Chengdu SICHUAN RIBAO in Chinese 29 Jan 82 p 1

[Article: "More and Faster Economic Diversification in Neijiang Prefecture. Collectives and Individuals Rise Together. 'Watermelons' and 'Sesame' Require Attention"]

[Text] In the course of leading economic diversification, party and government units at all levels in Neijiang Prefecture have diligently implemented party policies and have brought into full play the enthusiasm of both collectives and individual commune members to bring about a tremendous increase in output value from economic diversification. Despite the especially great flood disasters of 1981, the prefecture's total grain output still increased slightly over the previous year. Cotton, oilbearing crops, and jute output increased tremendously, and most items in the planting and breeding industries overfulfilled plan. Statistics from the Prefecture Statistical Bureau show gross output value from economic diversification in the prefecture to have been about 680 million yuan, a 15 percent over the previous year. Average per capita income may reach 94 yuan, a net increase of 12 yuan over the previous year.

Neijiang Prefecture located in the Tuo Jiang basin has extremely superior conditions for development of economic diversification. As a result of readjustment of the internal structure of its agriculture and its crop patterns since the Third Plenary Session of the 11th Party Central Committee. substantial development has occurred in its economic diversification. But the collective has moved ahead rapidly while development of commune member household sideline occupations has been slow. Following investigation and study last spring, the Prefecture CCP Committee and government administrative offices put forward ideas and actions to be taken for vigorous development of economic diversification, requiring the bringing into full play of the enthusiasm of collectives and individuals, with the organization under unified production team and production brigade leadership of various kinds of specialized teams, and specialized groups, and the designation of specialized households and specialized workers for teh signing of contracts. The prefecture further promoted the "four specializations and one contract" responsibility system linking calculation of compensation to output. It encouraged voluntary combination in production teams practicing large scale assignment of responsibilities for joint operations among households. All

projects that lend themselves to performance by individual commune members, commune members should be allowed to perform to the maximum possible extent, production teams helping out with organization or providing support. A policy of adptation of general methods to local situations, broadening avenues, making the most of advantages, and accentuating strengths while avoiding weaknesses was emphasized. While maintaining ecological balance, attention was given to what grows in the ground, flys in the air, swims in water, and is raised at home. Equitable provisions were made for planting, breeding, collecting, and processing.

With the implementation of policies, enthusiasm of cadres and the masses made an upsurge, and the path for practicing economic diversification was wider and methods greater. In 1981, in addition to giving attention to staple economic crops and key economic diversification projects, the prefecture's farflung cadres and masses devoted serious attention as well to traditional non-staple economic crops and sideline occupations, achieving both the holding of "watermelons" and the picking up "sesame seeds" at the same time, and obtaining economic benefits from "seeking wealth in every quarter, and having treasure come in from everywhere." The prefecture's economic crops of cotton, rape, peanuts, jute, hot peppers, ginger, watermelons, mushrooms, and citrus fruit, as well as forestry, and hogs, sheep and goats, rabbits, chickens, ducks, and geese all increased over 1980. Cotton increased 15.8 percent; rape increased 28.9 percent; peanuts increased 20 percent; jute increased 23.6 percent, ginger increased 3.4 fold; and watermelons increased 1.3 fold. Very great development also occurred in commune member household sideline occupations. On the basis of investigations conducted among 366 commune member households in eight counties and one municipality in the prefecture, the Prefecture Statistical Bureau reported that last year commune member household sideline occupation earnings increased by between about 20 and 30 percent over the previous year.

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ORG: None

TITLE: "Nowcasting of Disastrous Severe Storms and Joint Preparations"

SOURCE: Beijing QIXIANG [METEOROLOGICAL MONTHLY] in Chinese No 2, 10 Feb 82 pp2-4

ABSTRACT: Currently, the extremely important problem in weather forecasting is the sudden development of very damaging storms, which are often accompanied by violent wind, heavy rain, hail, thunder, tornado, and even mountain torrents. Although more have been learned about such swift change of weather, to predict it remains a difficult problem. For the purpose of providing some warning, the work of nowcasting has been given considerable attention in foreign countries, such as the USA, Japan, England, Canada, etc. In Aug 81, the world meteorological organization held a conference in Hamburg to discuss the science of nowcasting. Some Japanese and US specialists claim that this is the direction of service of weather forecasting in the 80's. Following a brief introduction of the condition of nowcasting reach and practice in foreign countries, similar work in China, primarily in Hunan, Anhui, Jilin Railway system, and some urban weather stations are briefly described. Such nowcasting experiments are being carried out in the 4 years of 1977-80 and have become a very popular program. The rate of accuracy for predicting rains may reach 84 percent and the duration of prediction before the event is 62 minutes on the average.

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TITLE: "Climatological Features of the Dry Wind in the Hexi Corridor Region of Gansu Province"

SOURCE: Beijing QIXIANG [METEOROLOGICAL MONTHLY] in Chinese No 2, 10 Feb 82 pp 23-25

ABSTRACT: The dry wind is one of the major damaging meteorological phenomena affecting high and stable yield of wheat in the Hexi Corridor. It usually occurs in the first part of Jun to the early to middle part of Jul, during the blooming-milk ripe stage of wheat. It can cause various degrees of damage to more than 2/3 of the 4 million mu of wheat in these 15 counties. The yield reduction may reach 10-20 percent. Based upon observational and experimental data of the past several years and related survey reports, this paper analyzes the meteorological characteristics of this dry wind and attempts to classify it. Preventive measures, including afforestation to stabilize the sand, protect the cropland, and improve the microclimate of the fields, sprinkling ash-water on wheat plants, lightly irrigating wheat fields 1-2 days before the dry wind, and mixing seeds with such chemicals as cycocel, calcium chloride, etc. in solutions before planting are proposed.

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TITLE: "Long Term Forecasting of Scab Fungus Disease of Wheat"

SOURCE: Beijing QIXIANG [METEOROLOGICAL MONTHLY] in Chinese No 2, 10 Feb 82 p 25

ABSTRACT: In recent years, the author and colleagues analyzed and compared weather data with information concerning the condition of the scab disease of wheat to formulate a system of forecasting this disease. The analysis and study disclose that the extent of this disease has a close relationship with the average temperature of September of the previous year and the rainfall of the winter, from Dec to Feb. The experimental equation of  $J_1 = T + KR$  is obtained: where T is the average temperature of Sep; K is an experience coefficient = -0.0437; R is the winter rainfall. Through computation, the following indices are produced: (1) If T > 24 C, it is a mild year for scab; (2) If  $J_1 < 15.35$ , it is a severe year for scab; (3) If  $J_1 > 15.35$ , it is a mild year for scab. These 3 indices have been used to check the condition of scab for several recent years to prove them to be basically accurate as a technique for predicting the condition of scab.

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